



Friends of Mineralogy-Colorado Chapter
P.O. Box 5276
Golden, CO 80401-5276

Friends of Mineralogy, Colorado Chapter Newsletter – March 2010

Next meeting March 11th, 2010 at the Denver Museum of Nature and Science

2001 Colorado Blvd., Denver, CO

[Enter the museum via the staff/security entrance, to the left of the main entrance doors on the north side of the museum. Security staff will direct you to the V.I.P. Room, which is to the left, past the T-Rex Cafeteria area.]

(Board meeting 6:45-7:30)

FRIENDS OF MINERALOGY PROGRAM FOR MARCH 2010

Black Smoke & White Iron

A History of Colorado Kilns, Ovens, Furnaces and Rails

By William Reich, historian & author

Colorado's smelters and steel mills were instrumental in turning her mineral wealth into bars of gold and silver and just as importantly into steel rails for her expanding railroad network. The smelter furnaces that accomplished this used free carbon in the form of coke and charcoal to create the reducing atmospheres necessary for the proper operation of blast furnaces. The production of these two materials was big business in the state and the major topic of this book published by the Colorado Railroad Museum.

Why did the railroads care? The railroad-owned steel mill at Pueblo was the major producer and user of coke. It was the fuel necessary to turn iron ore into the steel rails they needed for expansion. Their business practices created the charcoal industry as the state's silver smelters could not get enough coke for their furnaces and timber for charcoal was readily available in Colorado's mountains to be used as a substitute.

Bill Reich, a Colorado native and retired mechanical engineer has researched and written for the last 15 years about Colorado's past industries. His first book published in 2008 was *Colorado's Industries of the Past*. Bill spent most of his professional career working for small technically oriented companies in the Boulder area before retiring in 2007 to spend more time looking into Colorado's past. His most recent book is —Black Smoke and White Iron—was published by the Colorado Railroad Museum in 2009.

Bill Reich will be bringing copies of his books to the meeting, suitable for purchase & signing.

a postscript about iron smelting & mining in Colorado:

Those of us interested in Colorado minerals don't normally get involved in matters of coal, coke, and charcoal, but we are familiar with the minerals that go into iron ore production; not just the iron ores themselves, but also the minerals mined for addition as fluxes—limestone and fluorite. Here is a short list of some of the deposits that were mined for use in Colorado's iron industry:

Calumet iron mine, near Salida, Chaffee County – magnetite, hematite
Grayback district, Costilla County—magnetite, hematite
Orient iron mine, southeast of Villa Grove, Saguache County—goethite, “limonite”, hematite
Browns Canyon district, Chaffee County--fluorite
Jamestown district, Boulder County—fluorite
Northgate district, Jackson County—fluorite
St. Peters Dome area, El Paso County—fluorite
Wagon Wheel Gap deposit, Mineral County—fluorite
Magnetite and hematite occurs in the contact-metasomatic deposits at Leadville and are said to have been “mined extensively for smelter flux” (Emmons et al., 1927)—evidently, not for actual iron production, but as an addition to the smelters producing silver and gold at Leadville.

--- Pete Modreski (information from *Minerals of Colorado*, 1997)

2010 FMCC Board of Directors:

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2010 FMCC silent auction

The FMCC silent auction will be held May 15, 2010 from 11-4 P.M. (note that these are slightly different from last year's times, but similar to rental times we've had in the past). I plan on giving a deposit check to the Clements staff if I haven't heard any opposition.

Cordially,
Bruce
303-550-5806

MUSEUM MUSINGS;

APRIL 3: CSM GEOLOGY MUSEUM “GARAGE SALE”

Sat., Apr. 3, Colorado School of Mines Geology Museum, second “Garage Sale” from 9 A.M. until 4 P.M. in the conference room across the hall from the Museum entrance, at 1310 Maple St. (southwest corner of 13th and Maple Streets), Golden, CO. There will be a wide assortment of rocks and minerals by the flat, fossils, equipment, printed material, and miscellaneous items. Prices will drop by the hour. Weekend parking is usually never a problem. For further information please phone 303-273-3815.

GRAB BAG CHAIRMAN ILL: NEED REPLACEMENT

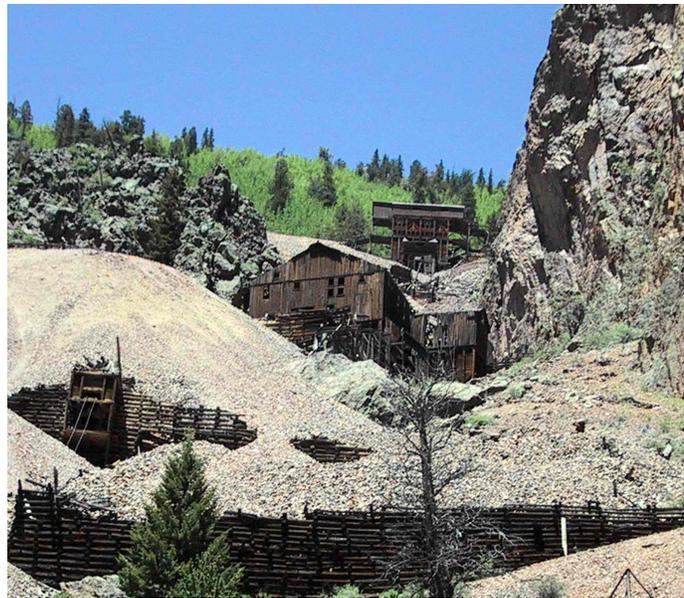
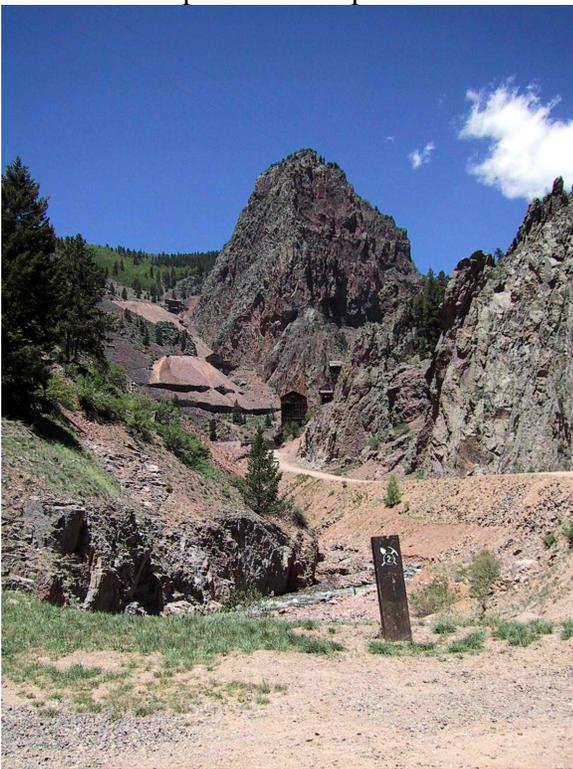
Ray Story, our past grab bag chairman has been very ill. He cannot continue in his job. Those of you out there who think that you can't take on the job and probably he will continue need to know that he cannot continue. BUT THE GOOD NEWS IS: WHO EVER TAKES OVER THE CHAIRMANSHIP WILL HAVE AN EASY TIME. Ray said he would be there for support. He has a list of volunteers to call, in fact he had so many he had to turn some away last year. PLEASE CALL BARB MELBY 303-423-5876 AND VOLUNTEER

From the editor;

The spring collecting season is upon us as we all look forward to getting out of the house and finding some good mineral specimens. The hot and dry summer localities are now ripe for the picking. Table Mountain, eastern plains barites and the Book Cliffs out west all are good early collecting localities. The eternal, or should I say infernal, itch to get out and prospect is reaching its annual maximum. Thoughts of “what ifs” and “maybes” concerning possible new mineral locations are red hot on the mind. Follow the geology! Over the next hill, across the next valley, one more mountain to find that new pegmatite, an elusive skarn or undiscovered evaporate location. If only it were really that simple. The complexity of most of the better mineral collecting locations shows that they’re not a common occurrence. Yet, we still strive to locate that untapped resource we all know must be out there. Then reality hits with limitations of time and money. Finding the proper permissions to cross private property in your search is time consuming. Taking care of old promises made last year and dealing with responsibilities of claim ownership, checking that the “new” ground you just found isn’t already claimed and so it goes. Here’s to hoping we all find our once-in-a-lifetime pocket many times over.

CREEDE SYMPOSIUM;

Update: Some tentative speakers are lined up and we are working on getting some posters together representing a variety of sciences. The cost of the symposium will be kept as low as possible so that anyone that wants to attend might be able to join us. The dates of the symposium will be September 10-12, Fri-Sun. The symposium will open Friday evening sometime around five pm. Saturday will be filled with talks and demonstrations, posters etc. and Sunday will be field day. The Denver Gem show follows the next week. We are working on getting a balance of speakers covering the history, geology, mining (both historic and modern), water and environmental issues and mineral collecting of the Creede district. Tables for selling mineral specimens will be available and a separate area will be available to micromounters. Lodging will be in a variety of places from South Fork to Creede itself. Meals are being planned and all is coming together quite nicely. Jim Herron has donated a 2” specimen of Sphalerite on Galena from the OH vein near #19 rise.



Commodore Mine Workings, West Willow Creek Canyon Photos by Jim Herron

TUSCON GEM AND MINERAL SHOW 2010

Tucson 2010 by Donna Ware

I had a lot of fun in Tucson again this year. The theme for the T.G.M.S. show was Gems and Gem minerals. Sensory overload. The displays were beautiful. Kay Thompson entered a competition display of some of her thumbnail specimens. I thought it was very well done and evidently the judges did too as she won first place in her category. The Friends of Mineralogy had an information booth that many of our fellow members from across the country took turns manning. Thanks to Nelson Shaffer from Indiana for organizing the booth, getting the volunteers together and manning the booth when no one else was available. The Friends had a very nice display with plaques listing the winners of F.M. awards and a selection of quality mineral specimens. The variety of gem and gem mineral specimens shown in the displays were truly impressive. People can facet almost anything these days, everything from calcite and gypsum to your traditional gemstones. Anything your heart desires (and probably can't afford) could be found at one the many shows in town.

Jim Hurlbut was our chapter representative for the national meeting held at the Inn Suites Hotel. Marti Zinn provided the food and refreshments. Thank you Marti! See your national newsletter for information about topics covered at the meeting.

While two weeks seems like a long time to spend doing the shows, it is not nearly enough time to begin to see more than a small fraction of what is available. I can't wait until next year when again I will try to see it all.



Friends of Mineralogy Case



Friends of Mineralogy Table



Jeff Self's display of Gem Minerals and Gems of Colorado

From National FM Winter Newsletter;

An email from Robert Housley, Southern California Chapter:

As you have probably heard much of California has already been closed to mineral collecting and there are plans in the works to close off even more. One partial remedy that has been suggested is for mineral clubs to file mining claims on important study localities. Does FM have any position on this idea? Are affiliated Chapters allowed to file such claims? If FM does not have a position perhaps this could be an agenda item for the next meeting.

The reply from Allan Young, FM Board:

Sorry for the delay in responding, and thank you for a good excuse to write about a subject that has troubled me for some time. First of all, to my knowledge, the National FM does not have an official position on their chapters filing mining claims on mineral collecting sites, but I will check at our next board meeting coming up next month. I do know that many mineral clubs throughout the west have indeed done this in the past, our local club here in Boise included, and there is certainly nothing in the Mining Law that would preclude a club from doing so. A couple of cautions, however: Most clubs, because they have fewer than 10 claims, fall under what is called the "small miner's exemption" which, provided they file the proper paperwork annually, does not require payment of the annual maintenance fee, now \$140/claim. However, if one or more of the club's officers or directors also uses the small miner's exemption for their own claims, and if the aggregate number of their claims and the club's claims exceeds 10, then the club could be responsible for payment of the annual maintenance fee. The second thing is, mining claims only give the locator the EXCLUSIVE rights to the minerals contained therein, provided they are "locatable." (Mineral specimens and gemstones are typically locatable, but not always) When areas containing mining claims are withdrawn from mineral entry, such as with the California Desert Conservation Act, mining is severely restricted if not prohibited on those included claims, and the claims may be subject to a validity examination. If the claim fails the validity examination, then it will be closed. In this case, a mining claim does not provide any protection whatsoever against the prohibition of collecting. Management of our public lands is becoming more and more recreation oriented. I believe what we need to do is convince public lands managers that RECREATIONAL MINERAL COLLECTING IS NOT MINING, IT IS RECREATION. (What I mean by recreational mineral collecting is that which done with hand tools and results in only minor disturbance. Activities involving mechanized equipment generally require that a notice or plan of operations be

submitted.) This activity is frequently not addressed in many resource management plans (which are updated every few years and govern the way the public lands are managed) and, as a result, how this activity is treated is many times left to the discretion of the local managers. I believe it is in the resource management planning process that the battle for our recreational mineral collecting rights will be won or lost. Many times, the legislation that creates wilderness areas and recreation areas do not contain a specific prohibition against recreational collecting. Such an example was the legislation that created the Sawtooth National Recreation Area. It is only in an obscure entry in an addendum to the Sawtooth National Forest Resource Management Plan that one can find any prohibition to mineral collecting. BLM regulations actually provide for recreational mineral collecting activities within wilderness areas (43 CFR 6302.15), but this can be trumped by local planners. Therefore, I believe what the mineral collecting community needs to do is become much more involved in the planning process. That means getting on the BLM and USFS mailing lists for planning documents, assign someone in each club or organization to be a watchdog, and get their members to write letters to the agencies. Otherwise, I, like many FM members and avid field collectors, am concerned that someday recreational mineral collecting will not be a permitted activity on much of our public lands.

**Greater Denver Area Gem & Mineral Council
Report to Denver Gem & Mineral Clubs
2009 Approved Grant Requests**

The Council receives, evaluates and approves grants twice each year, in March and September. This report is sent to all eight clubs who are now members of the Greater Denver Area Gem & Mineral Council.

- 1. Friends of Dinosaur Ridge** received \$5,000 in total grants for the following projects: Dinosaur Ridge Discover Day, August, 2009 they received \$500. The grant helps partially fund the expenses for their monthly educational open house and tour. The Council and Show Committee members staff a table to promote the upcoming Greater Denver Gem and Mineral Show in September. A \$4,500 grant to help with new signs and posters for Dinosaur Ridge and Triceratops Trail.
- 2. Bessemer Historical Society** – The Pueblo museum received \$2000 for mineral storage cases for their large mineral collection.
- 3. Colorado School of Mines Museum-** requested \$5000 to be used to expose, move, and install, in a cradle, an estimated 80 foot fossilized log. The Council approved this request. The School of Mines Museum later returned the check when the project was cancelled.
- 4. Todd Shannan – science teacher at Silver Creek High School –Longmont** – received \$500.00 to support the physical science curriculum. The money would be used to purchase supplies and specimens for classroom use.
- 5. Colorado Mining Exhibit Foundation-** received \$500 toward a program to educate teachers and the general public about earth sciences. They provide a mining exhibit at the Labor Day “Taste of Colorado” event. Members of the show committee participate in this event to promote the September Show.
- 6. Western Interior Paleontological Society** – received \$3,000 for printing publicity materials, such as posters, fliers and direct mail information, for their symposium participants.

7. Rocks and Minerals magazine – received \$2,000 for color photos in the August/September 2010 edition highlighting the Creede Mining District.

8. Newsletter Grant to 9 clubs – Each of the nine area clubs can receive a \$250 grant from the Council to help defray their newsletter expenses. The prerequisite to receive this grant is for the club to have a representative attend all four Council meetings in 2009. All nine clubs met this requirement in 2009. The total amount of grants to clubs was \$2250.00. Total funding for all approved grant requests in 2009 was \$15,250. The money for these grants comes from the profit of the 2008 Denver Gem and Mineral Show.

Colorado School Mines also received \$3,972.85 for their scholarship fund from the 2009 show grab bag sales. March 2010 is the next time the Council will accept and review new grant requests. Grant information and the application form is available at: denvermineralshow.com

Janie Bennett –Council Secretary

MINERAL ANNOUNCEMENTS:

Bill Hayward Mineral Sale

March 20,21 Mineral Sale

Bill Hayward, a long-time mineral collector, especially in the Pikes Peak area, is having a spring sale at his house. Lots of crystals and minerals for sale Items from Red Feathers Lake and Crystal peak. Some new stuff. Address: 3286 Quitman, Denver, CO; for more information, call **Bill at 303-455-1977**.

Fri., Mar. 12, USGS Free GPS, Map, & Compass Class; held in Building 810 on the Denver Federal Center, Lakewood; Map & Compass sessions are in the morning, 9-11:30 a.m., and "Using GPS with Topo Maps" in the afternoon, 12:30-5:00 p.m.; you may sign up for either or both classes. Free to anyone, but reservations are required and space is limited; call 303-202-4689 or write to gpsworkshops@usgs.gov. Classes will not always be held every month this year; to check on future dates and for more info., please see <http://www.cr.usgs.gov/gpsworkshops/>

Fri., Mar. 12, What's this Rock?; 7:00 p.m., Lookout Mountain Nature Center, 910 Colorow Rd. Golden, CO, phone 720-497-7600 "This program is an elementary introduction on how to identify common minerals and rocks. Learn how minerals and rocks form, how they are classified, how geologists determine their ages, and what they can tell us about Earth's history. Ages 13 - adult. This is a free program but registration is required. Please visit <http://lmnc.jeffco.us> to register."

Sat., Mar. 20, Rocks and Minerals; 9 a.m., Lookout Mountain Nature Center, 910 Colorow Rd. Golden, CO, phone 720-497-7600. "Enjoy an auto tour with Jack Reed, Emeritus Scientist at the U.S. Geological Survey, to see and learn about typical outcrops of sedimentary, volcanic, metamorphic and intrusive rocks in the local area. Discuss what we can learn from examining rocks in outcrops. Ages 13 - adult. This is a free program but registration is required. Please visit <http://lmnc.jeffco.us> to register."

Sun., Apr. 11, Colorado's Changing Climate; 1:30 p.m., Lookout Mountain Nature Center, 910 Colorow Rd. Golden, CO, phone 720-497-7600; "Join Robert Thompson and Laura Strickland from the U.S. Geological Survey for a discussion on methods scientists use to unravel the history of climate changes in Colorado over the last 15,000 years and how these changes have affected ecosystems in the Colorado Mountains. Ages 13 - adult. This is a free program but registration is required. Please visit <http://lmnc.jeffco.us> to register."

Fri., April 9 - Silent Auction, North Jeffco Gem & Mineral Club: North Jeffco Senior Recreation Center at 6842 Wadsworth Blvd., Arvada. Setup begins at 5:30 pm; auction starts at 6:45 pm. "Free refreshments, free parking, free admission. Come check out our silent auction, buy or sell items and have an evening of fun."

Fri-Sat-Sun, Mar. 26-28, Fort Collins Gem & Mineral Show, Lincoln Center, 417 W. Magnolia St.; 4-8 p.m. Fri., 9-6 Sat., 10-5 Sunday. For more info see <http://www.fortcollinsrockhounds.org/gemAndMineralShow.shtml>

Fri-Sat-Sun., Apr. 23-25, Spring Colorado Mineral and Fossil Show, at the Holiday Inn -- Denver Central, 4849 Bannock St. (Frontage road west side of I-25, just north of I-70); free admission and parking, 10 a.m.-6 p.m. Fri. & Sat., 10 a.m.-5 p.m. Sunday.

Denver Museum of Nature and Science lectures and courses:

Feb. 25, Conversations with History

Clay Jenkinson, humanities scholar and author, and Patty Limerick, faculty director and chair, Center of the American West, and professor of history, University of Colorado-Boulder

Join the Museum and the Center of the American West for a special evening as historian Patty Limerick interviews the 26th president of the United States, Theodore Roosevelt. President Roosevelt, remembered for his leadership of the Progressive Movement and his cowboy image, will be portrayed by actor Clay Jenkinson. Jenkinson is a humanities scholar, author, and social commentator who has devoted most of his professional career to public humanities programs. Limerick has dedicated her career to demonstrating the benefits of applying historical perspective to contemporary dilemmas and conflicts.

LIVE PERFORMANCE, Thursday, February 25, 7:00 p.m., Ricketson Auditorium, FREE

Mar. 10, Digital Earth: Explore the World from Space

Ka Chun Yu, PhD, curator of space science, Space Sciences Department, and Bob Raynolds, PhD, geologist and research associate, Earth Sciences Department

With Yu as your driver and Raynolds as your guide, embark on an amazing tour of Earth from the vantage of a satellite in space. This month, join us on a global tour to investigate the smashing of continental plates, the ripping apart of continents, and the wrenching apart of Californian vineyards. See vistas ranging from the highest mountains on Earth to the deepest troughs of the sea, from the longest mountain range on Earth to the tallest volcano on the planet.

DOMES PROGRAM, Wednesday, March 10, 7:00 p.m., Gates Planetarium, \$8 member, \$10 nonmember

CURATORS LUNCHTIME LECTURES

Curators and research associates bring you the latest research news from inside and outside the Museum. Located in Ricketson Auditorium. Free with Museum admission.

Feb. 17, Early Dinosaur Hunting in Colorado: 1876-1900

Ken Carpenter, PhD, chief preparator and curator of lower vertebrate paleontology, Earth Sciences Department, Wednesday, February 17, 12:15 p.m.

Mar. 3, Future Discoveries of Exoplanets

Ka Chun Yu, PhD, curator of space science, Space Sciences Department
Wednesday, March 3, 12:15 p.m.

Mar. 17, Timely Science: Voices of Yesterday, Science of Today

John Demboski, PhD, curator of vertebrate zoology, Zoology Department; and Mary Jane Bradbury, Museum

enactor

Wednesday, March 17, 12:15 p.m.

COURSES

Mar. 1-8, Colorado and Climate Change

Bob Raynolds, PhD, geologist and research associate, Earth Sciences Department

What impacts Colorado's climate? You've probably heard that the polar ice cap and the Greenland ice sheet are melting, but does that make any difference here in Colorado? This timely course will evaluate global climate change and its impact on Colorado. Examine water resources, biodiversity, and the challenges associated with ongoing changes to our landscape. A daylong field trip is included to see firsthand the changes affecting our surroundings.

COURSE; Mondays & Wednesdays, March 1-8, 6:30-8:30 p.m.

Classroom 303; Field trip: Saturday, March 6; \$110 member, \$140 nonmember

Apr. 7-24, Trace Fossils: Tracks, Trails, Burrows, and Bites

Greg McDonald, PhD, senior curator of natural history, Park Museum Management Program, National Park Service, and research associate, Earth Sciences Department

Ichnology, or the study of trace fossils, is the analysis of biogenic structures in sediments or other substrates that were caused by living organisms. Trace fossils of tracks, trails, burrows, nests, and coprolites can provide evidence of behavior and activity. McDonald will present a general overview of trace fossils and lead a field trip to two well-known trace fossil localities: Dinosaur Ridge and the Fossil Trace Golf Course.

COURSE, Wednesdays, April 7-21, Classroom 202, Field trip: Saturday, April 24, \$110 member, \$140 nonmember

Meeting Dates for 2010

The date for our next 2010 meeting will be May 13th.

Membership in FMCC and National FM is \$13 in 2010. Payment by check can be sent to our Treasurer or any Board member.

Your newsletter editor encourages all FMCC members to send your email address so that you will receive the newsletter electronically. The email version of the newsletter is in color; the paper version will have none. Please send your email address to Editor Bill Hutchinson at wmhutchi5@msn.com. Also if you only want a paper newsletter but are presently receiving an email newsletter, please let your editor know.

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